

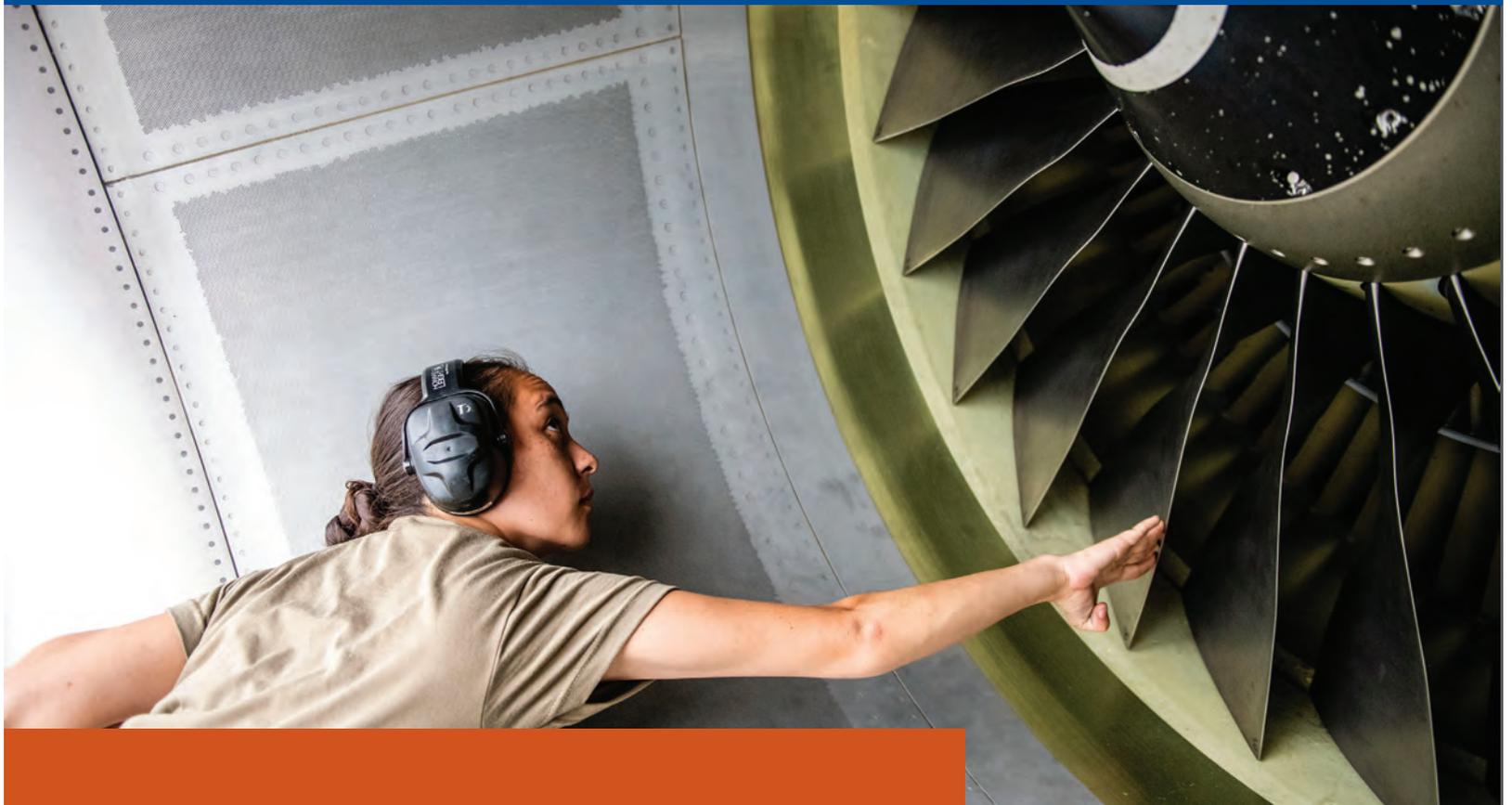


OKLAHOMA  
Commerce

OKLAHOMA  
**ACES**  
A DIVISION OF THE OKLAHOMA  
DEPARTMENT OF COMMERCE

# Annual Report

2021





# Letter from the State Director of Aerospace and Defense

Geoffrey A. Camp

State Director of Aerospace and  
Defense

[geoffrey.camp@okcommerce.gov](mailto:geoffrey.camp@okcommerce.gov)

With the completion of our third full year, we continue to make great strides in growing Oklahoma's aerospace and defense sector. Since inception, the ACES program has accrued 31 recruitment or expansion wins resulting in more than 4,400 new jobs, nearly \$1 billion in capital investment, and an addition of more than \$640 million in Department of Defense contract spending within our state.

The primary goal of ACES is to establish a common statewide strategy for the growth of Oklahoma's aerospace industry. In February 2021, we released an updated strategy which enhances our state's strengths – business friendliness, low cost, agility, expansive aerospace network, etc. It has broadened our focus to recruit advanced tech start-ups within the subsectors of A&D, including Unmanned Aerial Mobility, Commercial Space, Autonomy, and Additive Manufacturing. Expanding our strategy in this way allows us to take an active role in shaping the ongoing revolution in the aerospace industry.

Oklahoma continues to face lingering effects of the COVID-19 pandemic which disrupted the global supply chain. The varying severity in responses by both private and public sectors on a local, national, and global basis have delivered opportunities in recruitment to our state. Suppliers

and consumers have a reestablished value for a more localized supply chain. Our marquee win of 2021 – TAT/Limco – is a direct product of these opportunities. TAT's decision to move the entirety of their aerospace thermal products division from Israel to Oklahoma was based on proximity to customers, workforce, and suppliers.

We know that Oklahoma's aerospace legacy is founded in MRO and will continue to be our strongest attribute for many years to come. Many of our efforts over the past year have involved shoring up our largest MRO providers' supply chains. Connex Oklahoma and Sustainment Technologies platforms were released specifically to address supply chain disruptions.

None of our success this year would be possible without our many partners and teammates. I would like to thank the Aerospace Caucus and the many legislators who have supported our efforts with legislation, attendance, and advocacy. The ACES program also relies heavily on support from our partner agencies like the Oklahoma Aeronautics Commission, the Oklahoma Center for the Advancement of Science and Technology, the Oklahoma Manufacturing Alliance, Oklahoma CareerTech, and our university research partners at OU, OSU, and TU. Thank you for a successful 2021 and we look forward to a very bright future in 2022!

# Aerospace and Defense Economic Development Progress

Since 2018, the state has invested \$2.8 million in the ACES program. Over that time, the ACES team has secured \$998 million in new capital investment, and \$648 million in DoD funds have been contracted in the state.



## FROM THE BEGINNING

Since Nov. 1, 2018, Oklahoma ACES has helped secure



METRO AREA WINS: 58% | RURAL AREA WINS 42%

## A RECAP OF 2021



METRO AREA WINS: 54.6% | RURAL AREA WINS 45.4%

With the close of 2021, Commerce had 35 open A&D projects (potential for \$513 million in capital investment and 6,000 new jobs with an average salary of \$71,300). Commerce anticipates 20 of these have a high win probability and could bring 4,900 jobs and more than \$459 million in investment.



**IN THE PIPELINE**  
**\$513,000,000**  
Capital investment



**6,000**  
New jobs



**\$71,300**  
Average annual salary

# Major Aerospace & Defense News and Announcements

## ADDRESSING SUPPLY CHAIN ISSUES

As supply chain issues continued to expand during 2021, ACES placed an emphasis on strengthening the state's supply chain through two key programs – Connex Oklahoma and Sustainment Technologies.

In April, Governor Stitt announced the launch of Supply Chain Oklahoma, an effort to provide critical resources to Oklahoma manufacturers. The first key piece of the initiative to be rolled out was Connex Oklahoma, a new, free online database tool developed by the Oklahoma Manufacturing Alliance (OMA) in partnership with ACES. The tool allows manufacturers to connect, find alternate suppliers, explore production capabilities and view their supply chain visually. Just as important, it also helps manufacturers identify single-supplier risks and find supply chain diversification.

To date, more than 400 Oklahoma manufacturers have registered their companies and services on the database.

In October, Commerce's Aerospace & Defense Team announced a partnership with Sustainment Technologies, Inc., an Oklahoma-based software company. After discussions with the Air Force Materiel Command regarding a need to increase matchmaking opportunities with Oklahoma companies, ACES championed the integration of this AI & ML platform and partnered with Sustainment to activate it in the state. In doing so, Oklahoma became the first state to provide Sustainment's platform, Blueprint, to all stakeholders involved in the state's aerospace & defense sector to help them increase opportunities for DoD work.

## ISRAEL-BASED AEROSPACE COMPANY ANNOUNCES FACILITY RELOCATION TO TULSA

**TAT**  
**Limco**  
*Thermal Solutions*

TAT Technologies Ltd., announced plans to relocate its thermal components activities from Israel to Tulsa. TAT is the world's largest independent

manufacturing/repair company of thermal components for the aviation industry and also the parent company of Tulsa-based Limco Airepair. As part of this foreign direct investment announcement, the company will expand Limco which focuses on maintenance, repair, and overhaul (MRO) of thermal components. In addition to the local expansion, TAT will relocate their heat

exchanger components manufacturing activities, specializing in original equipment manufacturing (OEM) of thermal components, from Israel to Tulsa. The company also plans to establish a new global research & development center within their Tulsa campus and add 300 new jobs to the Tulsa metro.

"As we continue to deploy our thermal components strategy, our planned investment in Tulsa will form one of the largest and leading independent thermal components facilities for aerospace and defense industries with full life cycle support to our customers from Research and Development to design, manufacturing and aftermarket support," said Igal Zamir, TAT's president and CEO.

# Major Announcements

## ➤ AVIATION AVIONICS & INSTRUMENTS

**HEADQUARTERS:** formerly Freeport, New York  
Relocated from New York to Owasso, Okla. and plans to add 65 employees

## ➤ CONSOLIDATED TURBINE SPECIALISTS, A KRATOS COMPANY

**HEADQUARTERS:** Bristow, Okla.  
Expanding Bristow facility to include jet engine test cell with plans to add over 30 jobs

## ➤ FERRA AEROSPACE

**HEADQUARTERS:** Australia  
Adding 25 new jobs to Grove facility

## ➤ MINT TURBINES

**HEADQUARTERS:** Stroud, Okla.  
Signed MRO provider agreement with General Electric; adding 30 new jobs through the Oklahoma Quality Jobs Program

## ➤ NORTH STAR SCIENTIFIC

**HEADQUARTERS:** Hawaii  
Adding 50 new jobs to Oklahoma City operation; 2nd announcement in 6 months

## ➤ UNITED DYNAMICS

**HEADQUARTERS:** Shawnee, Okla.  
Opened engineering center in Oklahoma City, creating 38 new jobs



## COVID-19 Impact and Response

As businesses, communities and individuals deal with the continued effects of the COVID-19 pandemic, the ACES team worked to ensure it was finding ways to address company needs and new opportunities to grow the industry in the state.



# Statewide Outreach

## ➤ ACES MEETINGS

The **ACES annual meeting** featured an update on 2020 performance and accomplishments – in addition to cumulative program results – 2021 trade show and event opportunities, and legislative updates. The new ACES strategic plan was also presented.

### **ACES hosted panels on Research and Workforce Development**

where more than 100 participants heard about new aerospace & defense initiatives. Panelists included: Eddie Compton (Oklahoma CareerTech), Ryan Goertzen (VP of Workforce Development, AAR), Greg Smith (Northrop Grumman), Dr. Jamey Jacob (OSU) and Cliff Wojtalewicz (OU).

## ➤ WORKFORCE COMMITTEES

The ACES Workforce Development Working Group was established to meet the goals of the statewide aerospace strategic plan. Marcie Mack, then-State Director of CareerTech, Greg Smith, Site Director of Northrop Grumman, and Ryan Goertzen, VP Workforce Development for AAR, were recruited to lead the initiative. Three subcommittees were created and over 55 aerospace industry leaders and volunteers were recruited to participate.

## ➤ DEPARTMENT OF DEFENSE

The ACES team has ongoing conversations with military partners such as Tinker Air Force Base. During 2021, ACES and Tinker identified roadblocks in the base's vendor process which is limiting engagement with Oklahoma's small businesses. To address the issues, ACES hosted meetings to dissolve barriers to entry and supply chain opportunities, as well as hosted two webinars. The partnership between ACES and Sustainment on implementing the Blueprint platform in the state is also increasing access to DoD opportunities for Oklahoma companies.



# A&D Team Services

## ▶ TRADE SHOW SUPPORT

The Commerce A&D Team leads national and international trade show delegations, providing an opportunity for Oklahoma companies that may not have the budget to attend on their own to display and meet with potential customers at some of the most highly attended industry events.

During 2021, the ACES team partnered with 19 companies to attend six industry tradeshow. The team also worked with companies to utilize more than \$300,000 in federal STEP funds to help Oklahoma aerospace companies expand their export opportunities by attending trade shows and virtual international trade missions.



# \$300,000

Federal STEP funds to support  
19 Oklahoma companies at  
six trade shows



## ➤ SUPPLY CHAIN SUPPORT & EXPANSION

Through two supply chain platforms, Connex Oklahoma and Sustainment Technologies, the ACES team is helping Oklahoma manufacturers find new suppliers and diversify their businesses.

## ➤ BUSINESS-TO-BUSINESS EVENTS

The team facilitates B2B events to help Oklahoma companies become suppliers to commercial operations as well as the U.S. DoD and prime contractors.

## ➤ DIGITAL MARKETING

Through the ACES Advocate, a regular digital newsletter, and active social media accounts, ACES delivers valuable content, including exclusive event announcements, business opportunities, program updates and relevant industry news.



**ACES ADVOCATE:**  
**24%** Increase



**LINKEDIN**  
**72%** Increase



**FACEBOOK**  
**16%** Increase



**TWITTER**  
**73%** Increase



**39%**

total audience  
increase across digital  
marketing platforms

# Looking Forward

Oklahoma boasts a robust legacy in space, aviation (together known as aerospace), and defense. For over 70 years, the state has played host to what are now the largest military and commercial aircraft maintenance, repair, and overhaul (MRO) centers in the world: Tinker Air Force Base (AFB) in Oklahoma City and American Airlines Technical Operations in Tulsa.

Oklahoma remains an extremely competitive and attractive state for manufacturing-heavy operations. It is from this position the state will grow the A&D industry to the number one economic engine. Existing public policy and tax laws are favorable to business, especially in the A&D industry. Our attractive cost of living, vibrant cities, open spaces for flight test, and favorable weather climate make Oklahoma an ideal location for aerospace and defense operations.

Moving forward, it is critical the state's strategy pivot to establishment and development of cutting-edge technologies that can take root and grow here. Leveraging the workforce, resources, and inherent attractiveness, Oklahoma will build on its aerospace legacy to become a nation-leading incubator for technology innovation in A&D, attracting startups and larger companies to the state.

## ➤ ACES AEROSPACE & DEFENSE RECRUITING STRATEGY

The state's A&D industries are vast and highly complex. In order to maximize efforts, the ACES team is focusing on 4 broad-based objectives that are designed to provide the greatest return. These strategic pillars provide the basis for our state's A&D strategy:

**1** Provide the infrastructure to recruit, educate, and train the workforce needed to sustain and grow the aerospace industry within the state.

**2** Create an environment to attract startups of advanced technologies (additive technologies, batteries, electric propulsion, commercial space, unmanned systems) that are interwoven and connected to one another.

**3** Develop a university-led innovation cluster to support the aerospace and defense industry of the future.

**4** Position Oklahoma to be the center of excellence for the aviation engine sustainment enterprise.





**OKLAHOMA**  
**Commerce**

**[OKcommerce.gov/aces](https://okcommerce.gov/aces)**

900 N. Stiles Ave.

Oklahoma City, OK 73104

405-815-6552 | 800-588-5959